

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

012904  
1715  
U.S. PTO2253  
U.S. PTO  
10778764

012904

UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. 2269-5925US (03-0290.00/US)

First Inventor Hineman et al.

Title METHODS FOR IMPROVING METAL-TO-METAL CONTACT IN A VIA, DEVICES MADE ACCORDING TO THE METHODS, AND SYSTEMS INCLUDING THE SAME

Express Mail Label No. EV326921818US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)

2.  Applicant claims small entity status.  
See 37 CFR 1.27.

3.  Specification [Total Pages 23]  
(preferred arrangement set forth below)  
- Descriptive title of the Invention  
- Cross Reference to Related Applications  
- Statement Regarding Fed sponsored R & D  
- Reference to sequence listing, a table, or a computer program listing appendix  
- Background of the Invention  
- Brief Summary of the Invention  
- Brief Description of the Drawings (if filed)  
- Detailed Description  
- Claim(s)  
- Abstract of the Disclosure

4.  Drawing(s) (35 U.S.C.113) [Total Sheets 8]

5. Oath or Declaration [Total Pages 3]

a.  Newly executed (original or copy)  
b.  Copy from a prior application (37 CFR 1.63 (d))  
(for a continuation/divisional with Box 18 completed)

i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).

6.  Application Data Sheet. See 37 CFR 1.76

## ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)

8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)  
a.  Computer Readable Form (CRF)  
b. Specification Sequence Listing on:  
i.  CD-ROM or CD-R (2 copies); or  
ii.  paper  
c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATIONS PARTS

9.  Assignment Papers (cover sheet & document(s))

10.  37 C.F.R. §3.73(b) Statement  Power of (when there is an assignee) Attorney

11.  English Translation Document (if applicable)

12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations

13.  Preliminary Amendment

14.  Return Receipt Postcard (MPEP 503) (Should be specifically itemized)

15.  Certified Copy of Priority Document(s) (if foreign priority is claimed)

16.  Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.

17.  Other: \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation     Divisional     Continuation-in-part (CIP)

of prior application No: \_\_\_\_\_ / \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

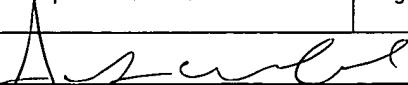
## 19. CORRESPONDENCE ADDRESS

 Customer Number

24247

or  Correspondence address below

Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type)	Joseph A. Walkowski	Registration No. (Attorney/Agent)	28,765
Signature			Date
		January 29, 2004	

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$ 1302

Complete if Known	
Application Number	To be assigned
Filing Date	January 29, 2004
First Named Inventor	Hineman et al.
Examiner Name	To be assigned
Art Unit	To be assigned
Attorney Docket No.	2269-5925US (03-0290.00/US)

METHOD OF PAYMENT (check all that apply)				FEE CALCULATION (continued)																																																																																																																																																																			
<input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/> Deposit Account: Deposit Account Number 20-1469  Deposit Account Name TraskBritt				<b>3. ADDITIONAL FEES</b> <table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Fee Code</td> <td>Fee (\$)</td> <td>Fee Code</td> <td>Fee (\$)</td> </tr> <tr> <td>1051</td> <td>130</td> <td>2051</td> <td>65</td> <td>Surcharge - late filing fee or oath</td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052</td> <td>25</td> <td>Surcharge - late provisional filing fee or cover sheet.</td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053</td> <td>130</td> <td>Non-English specification</td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812</td> <td>2,520</td> <td>For filing a request for reexamination</td> </tr> <tr> <td>1804</td> <td>920*</td> <td>1804</td> <td>920*</td> <td>Requesting publication of SIR prior to Examiner action</td> </tr> <tr> <td>1805</td> <td>1,840*</td> <td>1805</td> <td>1,840*</td> <td>Requesting publication of SIR after Examiner action</td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251</td> <td>55</td> <td>Extension for reply within first month</td> </tr> <tr> <td>1252</td> <td>420</td> <td>2252</td> <td>210</td> <td>Extension for reply within second month</td> </tr> <tr> <td>1253</td> <td>950</td> <td>2253</td> <td>475</td> <td>Extension for reply within third month</td> </tr> <tr> <td>1254</td> <td>1,480</td> <td>2254</td> <td>740</td> <td>Extension for reply within fourth month</td> </tr> <tr> <td>1255</td> <td>2,010</td> <td>2255</td> <td>1,005</td> <td>Extension for reply within fifth month</td> </tr> <tr> <td>1401</td> <td>330</td> <td>2401</td> <td>165</td> <td>Notice of Appeal</td> </tr> <tr> <td>1402</td> <td>330</td> <td>2402</td> <td>165</td> <td>Filing a brief in support of an appeal</td> </tr> <tr> <td>1403</td> <td>290</td> <td>2403</td> <td>145</td> <td>Request for oral hearing</td> </tr> <tr> <td>1451</td> <td>1,510</td> <td>1451</td> <td>1,510</td> <td>Petition to institute a public use proceeding</td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452</td> <td>55</td> <td>Petition to revive - unavoidable</td> </tr> <tr> <td>1453</td> <td>1,330</td> <td>2453</td> <td>665</td> <td>Petition to revive - unintentional</td> </tr> <tr> <td>1501</td> <td>1,330</td> <td>2501</td> <td>665</td> <td>Utility issue fee (or reissue)</td> </tr> <tr> <td>1502</td> <td>480</td> <td>2502</td> <td>240</td> <td>Design issue fee</td> </tr> <tr> <td>1503</td> <td>640</td> <td>2503</td> <td>320</td> <td>Plant issue fee</td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460</td> <td>130</td> <td>Petitions to the Commissioner</td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807</td> <td>50</td> <td>Processing fee under 37 CFR 1.17 (q)</td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806</td> <td>180</td> <td>Submission of Information Disclosure Stmt</td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021</td> <td>40</td> <td>Recording each patent assignment per property (times number of properties)</td> </tr> <tr> <td>1809</td> <td>770</td> <td>2809</td> <td>385</td> <td>Filing a submission after final rejection (37 CFR § 1.129(a))</td> </tr> <tr> <td>1810</td> <td>770</td> <td>2810</td> <td>385</td> <td>For each additional invention to be examined (37 CFR § 1.129(b))</td> </tr> <tr> <td>1801</td> <td>770</td> <td>2801</td> <td>385</td> <td>Request for Continued Examination (RCE)</td> </tr> <tr> <td>1802</td> <td>900</td> <td>1802</td> <td>900</td> <td>Request for expedited examination of a design application</td> </tr> <tr> <td colspan="4">Other fee (specify) _____</td> </tr> <tr> <td colspan="4">*Reduced by Basic Filing Fee Paid</td> </tr> <tr> <td colspan="4">SUBTOTAL (3) (\$ 40)</td> </tr> </tbody> </table>				Large Entity	Small Entity	Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	1053	130	1053	130	Non-English specification	1812	2,520	1812	2,520	For filing a request for reexamination	1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	1251	110	2251	55	Extension for reply within first month	1252	420	2252	210	Extension for reply within second month	1253	950	2253	475	Extension for reply within third month	1254	1,480	2254	740	Extension for reply within fourth month	1255	2,010	2255	1,005	Extension for reply within fifth month	1401	330	2401	165	Notice of Appeal	1402	330	2402	165	Filing a brief in support of an appeal	1403	290	2403	145	Request for oral hearing	1451	1,510	1451	1,510	Petition to institute a public use proceeding	1452	110	2452	55	Petition to revive - unavoidable	1453	1,330	2453	665	Petition to revive - unintentional	1501	1,330	2501	665	Utility issue fee (or reissue)	1502	480	2502	240	Design issue fee	1503	640	2503	320	Plant issue fee	1460	130	1460	130	Petitions to the Commissioner	1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	1806	180	1806	180	Submission of Information Disclosure Stmt	8021	40	8021	40	Recording each patent assignment per property (times number of properties)	1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	1801	770	2801	385	Request for Continued Examination (RCE)	1802	900	1802	900	Request for expedited examination of a design application	Other fee (specify) _____				*Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$ 40)			
Large Entity	Small Entity	Fee Description	Fee Paid																																																																																																																																																																				
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																				
1051	130	2051	65	Surcharge - late filing fee or oath																																																																																																																																																																			
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.																																																																																																																																																																			
1053	130	1053	130	Non-English specification																																																																																																																																																																			
1812	2,520	1812	2,520	For filing a request for reexamination																																																																																																																																																																			
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																			
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																			
1251	110	2251	55	Extension for reply within first month																																																																																																																																																																			
1252	420	2252	210	Extension for reply within second month																																																																																																																																																																			
1253	950	2253	475	Extension for reply within third month																																																																																																																																																																			
1254	1,480	2254	740	Extension for reply within fourth month																																																																																																																																																																			
1255	2,010	2255	1,005	Extension for reply within fifth month																																																																																																																																																																			
1401	330	2401	165	Notice of Appeal																																																																																																																																																																			
1402	330	2402	165	Filing a brief in support of an appeal																																																																																																																																																																			
1403	290	2403	145	Request for oral hearing																																																																																																																																																																			
1451	1,510	1451	1,510	Petition to institute a public use proceeding																																																																																																																																																																			
1452	110	2452	55	Petition to revive - unavoidable																																																																																																																																																																			
1453	1,330	2453	665	Petition to revive - unintentional																																																																																																																																																																			
1501	1,330	2501	665	Utility issue fee (or reissue)																																																																																																																																																																			
1502	480	2502	240	Design issue fee																																																																																																																																																																			
1503	640	2503	320	Plant issue fee																																																																																																																																																																			
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																			
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)																																																																																																																																																																			
1806	180	1806	180	Submission of Information Disclosure Stmt																																																																																																																																																																			
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																			
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))																																																																																																																																																																			
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																																																																			
1801	770	2801	385	Request for Continued Examination (RCE)																																																																																																																																																																			
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																			
Other fee (specify) _____																																																																																																																																																																							
*Reduced by Basic Filing Fee Paid																																																																																																																																																																							
SUBTOTAL (3) (\$ 40)																																																																																																																																																																							
Total Claims 33 -20 ** = 13 X 18 = 234 Independent Claims 6 -3 ** = 3 X 86 = 258 Multiple Dependent X = 0																																																																																																																																																																							
<table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr> <td>Fee Code</td> <td>Fee (\$)</td> <td>Fee Description</td> </tr> <tr> <td>1202</td> <td>18</td> <td>2202 9 Claims in excess of 20</td> </tr> <tr> <td>1201</td> <td>86</td> <td>2201 43 Independent claims in excess of 3</td> </tr> <tr> <td>1203</td> <td>290</td> <td>2203 145 Multiple dependent claim, if not paid</td> </tr> <tr> <td>1204</td> <td>86</td> <td>2204 43 ** Reissue independent claims over original patent</td> </tr> <tr> <td>1205</td> <td>18</td> <td>2205 9 ** Reissue claims in excess of 20 and over original patent</td> </tr> <tr> <td colspan="4">SUBTOTAL (2) (\$ 492)</td> </tr> </tbody> </table>				Large Entity	Small Entity	Fee Description	Fee Code	Fee (\$)	Fee Description	1202	18	2202 9 Claims in excess of 20	1201	86	2201 43 Independent claims in excess of 3	1203	290	2203 145 Multiple dependent claim, if not paid	1204	86	2204 43 ** Reissue independent claims over original patent	1205	18	2205 9 ** Reissue claims in excess of 20 and over original patent	SUBTOTAL (2) (\$ 492)																																																																																																																																														
Large Entity	Small Entity	Fee Description																																																																																																																																																																					
Fee Code	Fee (\$)	Fee Description																																																																																																																																																																					
1202	18	2202 9 Claims in excess of 20																																																																																																																																																																					
1201	86	2201 43 Independent claims in excess of 3																																																																																																																																																																					
1203	290	2203 145 Multiple dependent claim, if not paid																																																																																																																																																																					
1204	86	2204 43 ** Reissue independent claims over original patent																																																																																																																																																																					
1205	18	2205 9 ** Reissue claims in excess of 20 and over original patent																																																																																																																																																																					
SUBTOTAL (2) (\$ 492)																																																																																																																																																																							

\*or number previously paid, if greater; For Reissues, see above

SUBMITTED BY		Complete (if applicable)		
Name (Print/Type)	Joseph A. Walkowski	Registration No. (Attorney/Agent)	28,765	Telephone 801-532-1922
Signature			Date	January 29, 2004

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-766-9199) and select option 2.